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ABSTRACT

Interest inventories have been used extensively in high schools and universities to help students make career choices. To determine whether interest inventories aid students with their career development toward their college major and occupational choice, students were assigned to one of six interest inventory groups: Strong-Campbell (N=44); Kuder DD (N=44); Jackson JVIS (N=45); College Major Card Sort (N=54); Control I (N=42); and Control II (N=41). The students completed the Career Development Survey to assess their levels of development toward their college major and occupational choices. One control group received a pre-test and a post-test to check the reliability of the instrument and to assess the effect of a pre-test on the post-test. Significant differences occurred between the freshmen, sophomores, juniors, and seniors; however, no significant differences existed between the sexes. The interest inventory groups had slightly higher means; however, no significant differences existed between the six groups. The findings suggest that interest inventories may not aid students toward their career choices as much as is assumed. (Author/NRB)

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DO INTEREST INVENTORIES AID STUDENTS TOWARD THEIR COLLEGE MAJOR AND OCCUPATIONAL CHOICES?

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DO INTEREST INVENTORIES AID STUDENTS TOWARD THEIR COLLEGE MAJOR AND OCCUPATIONAL CHOICES?

Using interest inventories to help make a career choice has been widely established in the high schools, colleges, and universities throughout the country. In counselor education programs, very often, the counselor trainee begins the counseling practicum experience by interpreting interest inventories to lower division students. In fact, the use of interest inventories in career counseling has almost become an American institution and tradition.

It has been very interesting to study the results obtained by researchers when they have compared interest measures in various ways. King, Norrell, and Powers (1963) found identical items on the SVIB and Kuder had a lower correlation than relatively unrelated items. Zytowski (1968) found when comparing three interest inventories (the SVIB, KOIS, and MVII) that predictions of a similarly named scale from one inventory to another would be unreliable.

Jackson (1977) ran correlations between the 34 categories on the Jackson Vocational Interest Scale (JVIS) and similar scales on the SVIB, and he found a few correlated well, but that correlations of similar items were generally low. He believes this was due, however, to the conceptualization and content underlying the scales.

In studies by O'Shea and Harrington (1971) and Wilson and Kaiser (1968), it was reaffirmed that similar named scales on two inventories are not necessarily measuring the same things. They concluded that using two different interest inventories with the same client will frequently lead to conflicting interpretations. This is hardly a recommendation for helping individuals already perplexed by career choices.

Zytowski (1972) suggests that it would be difficult to judge which inventory would be more valid than another at this time. He added that counselors in the field would have to select the interest inventory that seems to fit their service population and also consider the ease of administration, cost, and other such factors.

After all the research that has been done comparing commonly used interest inventories in various ways, it now seems appropriate to find out if these inventories aid students with their career development toward their occupational and college major choices. When students are asked informally, after they have reviewed their interest results with a counselor or some prepared interpretation, if the interest test helped them their responses are varied: "It didn't help a bit," "I got some ideas," "I know what I don't like," "I have too many interests," "It helped a little," "It verified what I had been thinking about." Ard and Hyder (1978) found that students did not see interest tests as relevant to career planning.

The purpose of this study is to find out if students make progress toward their college major and occupational choices as a result of taking commonly used interest inventories and reviewing their results. This study will not attempt to check the validity of their choices, merely movement toward their choices.

Method

Sample. The students making up the sample for this study were 270 students (163 males, 107 females, of which 125 were freshman, 99 sophomores, 27 juniors and 19 seniors) at Brigham Young University who came to the Career Information Center during the Winter semester of 1979 to take an interest test to help them decide on their college major and occupational choices. The students were randomly placed in each of six interest inventory groups as follows: Strong-Campbell (44), Kuder DD-KOIS (44), Jackson JVIS (45), College Major Card Sort (54), Control I (42), Control II (41). Control II was used to check the reliability of the instrument used and to check the effect of a pre-test. The number of men and women students and the students in different classes were fairly evenly distributed among the six groups. The number in the card sort group was larger because after taking the card sort, they did not have to return to see their results; whereas, a few of the students taking the interest inventories did not return to review their results during the two-week period.

Instrument. The instrument chosen to be used for this study was the Goodson "Career Development Survey" (CDS) to measure the students career development level after they had taken an interest inventory and received their results. The instrument can be completed in about seven minutes and has proven to be sensitive enough to distinguish between the career development levels of students and to measure short-term career development gain (Goodson, 1978 and 1979). The CDS is divided into two parts, each having seven questions. One part measures the student's level of development toward their college major choice, and the other part measures the student's level of development toward their occupational choice. A score is obtained for each part as well as a combined career development score.

The first question of each part gives an individual the chance to indicate on a five-point scale his status toward his college major choice and occupational choice. The other six questions in each part allows the person to indicate "yes" or "no" to types of help personally needed to make a college major or occupational choice. Individuals receive a point for each "no" answer because they feel they have developed far enough to not need that certain type of help. The types of help they respond "yes" or "no" to include: how to choose a major or occupation, an overview of opportunities, a better understanding of self, how to make decisions, more detailed information about a few college majors and occupations and others.

Procedure. Students in the SCII, KOIS, and JVIS groups were given their randomly preassigned interest inventories immediately upon requesting to take an interest test as they came to the Career Information Center. They were told their results would be ready for their review after scoring in about one to two weeks. Even though the JVIS could be scored immediately by hand, these students were asked to come back later for their results. This was necessary so their experience would be the same as those taking the SCII and KOIS.

When the students returned for their results each student had them explained by means of an audio-visual or audio interpretation. Counselors

were not used in the interpretation process because it is difficult to control for counselor differences and it was felt that the inventories needed to be compared on their own merit without the intervention of a counselor. The SCII students considered their results while reviewing a 30-minute audio-visual slide interpretation presentation. The KOIS and JVIS students reviewed their results while listening to a tape presentation of the interpretation guide prepared by their respective testing companies. After reviewing their results and having them interpreted, the CDS was administered to each student. The students placed in the College Major Card Sort Group were given the card sort as soon as they entered the Career Center. The card sort provided students with the opportunity to sort out their college major interests from over 100 majors in the set. Most students completed the sorting in 10 to 15 minutes, after which they were immediately given the CDS without waiting the one to two week period required for those taking the interest inventories. As students sorted the major cards, they saw their results so there was no need to have them come back for any additional interpretations.

Two control groups were used in the study for a purpose. Control I had the same waiting period experience as those taking the three interest inventories. Upon arriving at the Career Center, they were given an appointment to return in one or two weeks to take an interest inventory before which they were given the CDS. Control II was used to check the reliability of the CDS by test re-test and to learn for future studies with the CDS if a pre-test would affect the post-test (Campbell and Stanley, 1966, Robinson, 1976). Upon arriving at the Career Center, these students were given the CDS as a pre-test. They were then given an appointment to return in one to two weeks to take an interest inventory, before which they were given the CDS as a post-test.

Analysis of variance was used to compare the six groups and their college major, occupational, and total career development mean scores. Anovar was used with a post hoc analysis to compare individual groups. The Pearson Product Moment correlation was used to check the test re-test reliability of the CDS with Control II.

Results

When the mean CDS scores of the six groups were compared by analysis of variance, no significant differences were found to exist among the groups as far as their level of development toward a college major choice, occupational choice, and overall career development was concerned. The (CDS) mean scores for each group is given in Table 1.

Table 1

It can be observed that both control groups had lower mean scores than the students receiving the interest test experiences, yet these differences were not significant. Since the post scores on both controls are familiar and not being significantly different, the pre-test given to Control II evidently did not have much effect on the post-means. The analysis of

variance comparisons between the mean scores of men and women on each of the three CDS scores also revealed no significant differences.

As shown in Table 2, significant differences did exist between the classes. The differences on the major mean scores were significant at the

Table 2

.0001 level, the occupational mean scores at the .001 level, and the total score at the .0001 level. The anovar post hoc analysis revealed that the freshmen and sophomores' college major and total career development means were significantly different than the juniors and seniors at the .05 level. However, only the freshmen were significantly different than the seniors at the .05 level on the occupational mean comparisons.

The test re-test reliability of the CDS with Control II (with a one to two week period between the administrations) gives a .85 reliability for the college major means, .76 for the occupational means, and .85 for the total career development means. The reliability for the CDS seems to be quite high.

Conclusions

Are students aided in their career development toward their college major and occupational choices and overall career development as a result of taking either the SCII, KOIS, or JVIS and by reviewing their results with the aid of an audio-visual or audio interpretation? It was found that students, after taking either of these interest inventories or the College Major Card Sort had higher CDS college major, occupational and total career development means than the two control groups. However, these differences were not significant at the .05 level when comparing the groups by analysis of variance. This could be because there are many other factors such as abilities, achievements, values, goals, etc., which influence and bring closure to a college major and occupational choice more than the results of interest inventories.

Significant differences were found to exist between the freshman, sophomore, junior and senior classes at the .001 level on the CDS occupational means and at the .0001 level when comparing the college major and total career means. A developmental pattern was found to exist with the freshmen having the lowest scores with the means becoming progressively higher with each additional year in school. This correlates with Crites' (1969) findings when standardizing and validating the VDI (Vocational Development Inventory, later changed to the Career Maturity Inventory) attitude scale. No significant differences were found to exist between men and women.

The test re-test reliability of the CDS with Control II revealed that the instrument proved to be fairly reliable when the students took the instrument, and then took it again after a one to two week waiting period. The reliability of the college major, occupational, and total career score means ranged from .75 to .85.

Indications are that the CDS pre-test did not affect the post-test results because Control I and II have near identical scores on all their post-test measures. The slight differences are not significant.

Implications

Based on the results of this study, the following implications should be considered by counselors, school administrators, career education teachers, and other professionals using interest inventories as part of personal career assessment and evaluation programs.

Since interest inventories do not aid students toward their college major and occupational choices as much as one would assume, those using them should probably not rely heavily on them for that purpose. Super and Crites (1962) remind us that there are other ways of identifying a person's interests such as expressed interests or a person's personal activities and hobbies. Borgen and Selings (1978) found that when expressed choice and SVIB predictions were not consistent for a person, the expressed choices were found to be two to three times more accurate than the SVIB.

Herr and Cromer (1979) remind us that there are many personal factors that professionals should help a person consider when they work to select their occupation or college major. These personal factors, besides interests, would include their abilities, values, goals, and achievements along with their personal career environment, career life-style, types of employers' preferences. Some of these factors could aid a person towards a career choice as much or more than interest inventory results.

Counselors and other career specialists who design and implement career development programs should seriously consider the research of Ard and Hyder (1978) and other such research. They found that the activities which students saw as most helpful were those which helped them gain self-insight, career knowledge, job seeking skills, and assertiveness experience. The students in their study did not see career decision-making workshops or taking a vocational interest inventory as being helpful.

The interest inventories used in career programs should constantly be evaluated to determine if they are helpful to those they were designed to help. With the evaluation data institutions could choose those interest inventories and other career tools and helps that prove to be cost effective in aiding student career development.

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Table 1

Means Of Students In Six Groups Compared By Analysis Of Variance

On The Three Measures Of The Career Development Survey

Group	No.	Major Score			Occupational Score			Total Score		
		$\bar{X}$	SD	F	$\bar{X}$	SD	F	$\bar{X}$	SD	F
Strong-Campbell	44	5.54	.407		4.50	.401		10.04	.733	
Kuder DD	44	6.17	.486		5.34	.478		11.52	.873	
Jackson	45	5.54	.688		5.08	.677		.62	1.237	
				.890			1.540			1.386
Card Sort	54	5.12	.473		4.32	.465		9.43	.350	
Control I	42	4.85	.728		3.40	.715		8.25	1.308	
Control II	41	4.73	.732		3.84	.719		8.57	1.316	

Note: No significant differences at the .05 level were found.

Table 2

Means Of The Students In Four Classes Compared By Analysis Of Variance On The Three Measures Of The Career Development Survey

Groups	No.	Major Score			Occupational Score			Total Score		
		$\bar{X}$	SD	F	$\bar{X}$	SD	F	$\bar{X}$	SD	F
Freshman	125	3.94	.211		3.46	.207		7.40	.379	
Sophomore	99	4.30	.253	16.88**	4.30	.249	5.64*	8.17	.454	12.45**
Junior	27	5.1	.600		4.40	.590		9.57	1.078	
Senior	19	7.89	.785		5.92	.772		13.81	1.411	

* $p < .001$
** $p < .0001$